

REMARKS

Claims 1, 3, 5, 7, 9-11 and 13-16 remain pending in the present application. Claims 1, 3, 5, 9, 10, 13 and 14 have been amended. Claims 15 and 16 are new. Basis for the amendments and new claims can be found throughout the specification, claims and drawings originally filed.

REJECTION UNDER 35 U.S.C. § 103

Claims 1, 3, 5, 7, 11, 13 and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kado (U.S. Pat. No. 5,236,042) in view of Kato (U.S. Pat. No. 6,073,688). Claims 1, 13 and 14 have been amended to recite a pair of header tanks which each define a rectangular cross section fluid chamber having a long side wall and a short side wall. The long side wall is parallel to the fluid flow direction, the short side wall is perpendicular to the fluid flow.

Kado ('042) may disclose a rectangular header tank but Kado does not disclose a header tank which defines a rectangular cross section fluid chamber. As shown in the Figures of Kado, the wall which is perpendicular to the fluid flow is curved. In addition, even if for arguments sake, a portion of Kado's fluid chamber is defined as a rectangular cross section (Figure 6) then the short side of the rectangular is not perpendicular to the direction of fluid flow it is parallel. This is exactly opposite to that defined in the present invention.

In the heat exchanger described in Kato ('688), the part in which concave and convex portions are formed is not a header tank, but a flat tube. Therefore, even if the concave and convex portions described in Kato ('688) are applied to the heat exchanger

described in Kado ('042), a heat exchanger provided with reinforcement ribs on a wall surface of a header tank, like the heat exchangers of the present application, cannot be obtained.

Alternatively, the Examiner might consider the portion designated by reference number 9a in Figures 2 and 3 of Kato ('688) as a "concave and convex portion formed in a wall surface of a header tank", but the portion designated by reference number 9a is merely burrings, which are formed around the insertion holes 9 for the flat tubes 2. In the heat exchangers of the present application, the wall surface of the header tank in which concave and convex portions are formed is not the same as the wall surface of the header tank to which the tubes are connected. In this point, the heat exchangers of the present application are quite different from the heat exchanger described in Kato ('688). Therefore, even if the burrings described in Kato ('688) are applied to the heat exchanger described in Kado ('042), a heat exchanger as described in the present application cannot be obtained.

In the heat exchangers described in the present application, since a respective mounting member is secured on the long side wall of the rectangular cross section of each of the header tanks and concave and convex portions are formed in the long side wall, the mechanical strength of the long side wall can be increased. The heat exchangers described in the references (Kado ('042) and Kato ('688)) do not possess this effect.

Thus, Applicant believes Claims 1, 13 and 14, as amended, patentably distinguish over the art of record. Likewise, Claims 3, 5, 7 and 11, which depend from

Claim 1, are also believed to patentably distinguish over the art of record. Reconsideration of the rejection is respectfully requested.

Claims 9 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kado (U.S. Pat. No. 5,236,042) in view of Lu (U.S. Pat. No. 5,482,114). Claim 9 has been amended in a way similar to Claim 1. Thus, the discussion regarding Kado and the rectangular cross section fluid chamber applies here also.

In the heat exchanger described in Lu ('114), the mounting bracket or the side support member 44 (corresponding to "a mounting member") is not secured on the wall surfaces of the tanks 28. Also, as this reference reads in lines 16-18 of column 4, the loading members 52 (corresponding to "a reinforcement") are members which help the side support member 44 to sustain the vibration of the vehicle by transmitting a portion of the load to the tanks 28 or manifolds 12, 14. That is, the loading member 52 is not the same as a reinforcement described in the present application which mitigates the concentration of stress applied to the proximal portion of the mounting member secured on the wall surface of the header tank.

Thus, Applicant believes Claim 9, as amended, patentably distinguishes over the art of record. Likewise, Claim 10 which depends from Claim 1 is also believed to patentably distinguish over the art of record for the reasons presented above relating to Claim 1.

NEW CLAIMS

Applicant believes the new Claims 15 and 16 read on the elected species. Claims 15 and 16 are new dependent claims that depend from Claim 1 and are thus believed to be allowable.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: April 26, 2004

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